Navy until 1919, his wartime duties taking him to China, among other places. He acted for a short time as medical officer to the Canton municipal council, later becoming medical officer to the Dimbulla District Planters' Association in Ceylon. In 1928 he returned to England and joined the late Sir Stewart Abram in partnership at Reading. On the death of his partner, Dr. Price carried on the practice alone until 1947, when he was joined by his son, Dr. H. M. Price. For some time Dr. Price was in charge of the physiotherapy department of the Royal Berkshire Hospital, where previously he had been clinical assistant in the ear, nose, and throat department for 13 years. He was medical officer to Reading School and commanding officer and medical officer from 1943 to 1946 of the Reading Sea Cadet Corps. A member of the British Red Cross Society for 17 years, he was for a time assistant county director. From 1942 to 1946 he was honorary secretary of the Reading Division of the British Medical Association. He had also held office as the honorary secretary of the local medical war committee. Always ready to take an active part in the community he served, he was a keen supporter of the British Legion. For many years he was a churchwarden at St. John's Church, Reading.

Medico-Legal

TRIAL OF DR. J. BODKIN ADAMS

EXPERT EVIDENCE CONTINUED

[FROM OUR SPECIAL CORRESPONDENT]

The trial of Dr. John Bodkin Adams, of Eastbourne, continued before Mr. Justice Devlin at the Old Bailey. Dr. Adams is charged with the murder of a patient, 81-year-old Mrs. Edith Alice Morrell, who died on November 13, 1950. He pleads not guilty.

Sir Reginald Manningham-Buller, Q.C., is appearing for the prosecution with Mr. Melford Stevenson, Q.C., and Mr. Malcolm Morris. Mr. Geoffrey Lawrence, Q.C., is appearing for Dr. Adams with Mr. Edward Clarke and Mr. John Heritage. The Medical Defence Union is acting for Dr. Adams.

On the eleventh day of the trial, April 1, Dr. M. G. C. Ashby was recalled to complete his evidence-in-chief. After questioning the witness about graphs illustrating the prescriptions the Attorney-General asked:

"In your opinion, what would be the effect on a woman of 81 years of age if given morphia and heroin in the quantities shown to have been prescribed between November 8 and 12?"—"I don't think it is possible that she could have survived those quantities without being steadily worked up to that dosage; that is to say, a patient receiving those doses when being treated for the pains of cancer would survive them, but they would have been built up several weeks before. They would have been getting perhaps 3 or 4 gr. of each. What led me to a conclusion about an inability to survive was the very sudden rise in the prescriptions as illustrated on the graph. The two situations are entirely different."

"That is taking morphia and heroin together?"—"Yes."

"If she had had the morphia alone what would have been the effect, in your opinion?"—"I don't think she could have stood such a very sudden increase of such an extent, because again the prescriptions as illustrated on the graph show no previous raising of morphia at all really right back to August 18. So there was no preparation for the big dose in respect of acquired tolerance to very high doses, again differing from the usual cancer patient."

The witness said that the same considerations would apply if the patient had had heroin alone; he did not think she could have survived if, instead of having the heroin and morphia alone prescribed, she had the major part of both. He wished to correct a "slight error" in his previous answer: the heroin was not quite the same as the morphia because, according to the prescriptions as illustrated on the graph, there had been a fivefold increase of heroin for the previous six or seven days. With such an increase it would be possible that she could have survived what was then more than 12 times as much; the dosage had been raised 18 times after only six days, and he did not think it was possible that a woman of 80 could survive that.

He said that every general practitioner would be aware of such facts in relation to morphia, because it was a drug of almost universal use. Not quite the same could be said of heroin, because there must be many family doctors who virtually never used it except perhaps in a linctus. He had never himself used heroin and morphia together in conditions where there was not severe pain, nor had he seen it used by a colleague in such circumstances.

He said that the complaint of severe pain on June 27, 1948, when the patient had been at the Neston Cottage Hospital, Cheshire, was probably due to arthritis. There was no evidence either way of the incidence of a thalamic syndrome. The pain on June 28 was probably dyspeptic from the distension of the stomach or viscera. Brandy frequently gave relief in such circumstances.

The Attorney-General: On every night while she was in that hospital—we do not know on whose instructions—she was given ¼ gr. of morphia. Would that, in your opinion, have produced addiction or not?"—"I do not think it is possible to answer that question with a straight 'Yes' or 'No,' for this reason: that if we assume for the moment that addiction is produced after three weeks it is not rational to say that there is no measure of it after nine days; but it would be very slight, and I don't think the addiction would have reached the degree to which the doctors would have to give any attention to gradually weaning. But I don't think it would be right to say that there would not be the beginnings of addiction in a very mild way in an average patient."

Expectation of Life

He was sure none of the doctors concerned would have agreed to Mrs. Morrell's journey back to Eastbourne had they not thought that she had greatly improved and that her transfer would in no way prejudice her further recovery. After morphia had been given for a week to 10 days every doctor would be thinking in terms of how much further it was right or proper to go on with it, because the dangers of addiction would then be steadily mounting—accepting for the moment the arbitrary figure of about three weeks.

In answer to the judge, he said he did not criticize the giving of morphia at the Cheshire nursing-home, because it was recorded that the patient was in severe pain and no doctor would dispute that morphia was one of the drugs that could properly be given to deal with it, although there might perhaps be better choices. The more important consideration was that during those first few days just after a severe stroke the patient's expectation of life was very poor indeed and the doctors would not be thinking in terms of future addiction; their one consideration would be to ease pain without prejudicing the patient's life. There would be an immense change in the prognosis on July 5, the day she was thought fit enough to return to Eastbourne. The prognosis would then be quite good and she could have been expected to have lived for six months to several years.

Asked by the Attorney-General whether there would be any justification on July 9, 1948, having regard to the previous injections, for injecting Mrs. Morrell each evening with hyperduric morphia just to secure sleep, the witness replied: "Taking into consideration that impending addiction was the overriding consideration at that time, morphia would not be the drug of choice; it would be one of the barbiturates, which are the drugs for promoting sleep."

He could think of no justification for adding heroin to the morphine injection on July 21, 1948, and he thought it enormously increased the already present danger of addiction. The patient would have been firmly addicted, but in no sense unweanable, by the time she left the Eastbourne nursing-home in October, 1948. After further questions on weaning treatment and tolerance, the Attorney-General said:

"What would be the effect on the general physical health of an old lady of 80 or 81 if she was submitted to heroin and morphia injections over a long period?"—"Patients' reactions vary to this, but on an average I think it can be said with assur-

ance that it does have a deleterious effect upon health. But in this patient's case I think it is necessary to add that, speaking from memory, for the first two years, or nearly so, the dosage rate was low, and we know from the nurses' books that, at any rate, until the spring of 1950 she was pretty well. So I think, whatever the average results, the deleterious effect upon Mrs. Morrell was relatively slight. I am talking about health, as opposed to being irritable at times."

Dealing with the injections given on November 6 to 12, he said the patient could not have survived that set of doses as a whole because the increase was very sudden over what she had been getting only a few days before. The jerky spasms and twitchings which had been mentioned in evidence were a very rare phenomenon, but his studies in the matter had not permitted any alternative to the conclusion that they were attributable to heroin. They did not sound in any way like epileptic fits. The most likely explanation was the high level of heroin the patient was having at that time. He did not see the justification for the administration of heroin and morphia on such a scale. In the absence of any doctor's notes about the condition of the patient it was very difficult to say whether something which must have been at least easing her passing was justified at the time or not.

Dilemma

He said he was unhappy about the last five days. He had studied the books and records with great attention to the problem as to what was the latest time at which what had been referred to as "the dilemma" could have been resolved, and his own conclusion had not been in agreement with Dr. Douthwaite's that all was lost by November 1.

The Attorney-General: "When do you think the moment came, so far as you can judge, when it was no longer possible to wean her of the addiction which was resulting from this routine administration by Dr. Adams from the time she came out of the nursing-home?"—"I think there was still a faint chance during the first week of November, and as it was a matter of inevitable death or a faint chance, speaking personally—I wasn't there—but from the record there was a chance which I think should properly have been taken. But in the absence of medical records of the case I think it is really quite impossible to say. I may be weeks wrong in this estimate, but my recollection of these books is that within two weeks of death she was bright and talkative—I think I am quoting correctly from memory. Well, I can't believe that a patient could not stand an attempt at weaning, on the basis we read out this afternoon, even at that stage. What was there to be lost?"

"Would it be right, in your opinion, from what you have seen, to describe the immediate cause of death of Mrs. Morrell as cerebral thrombosis?"—"Well, there was no recorded evidence to suggest it was that."

"From what you have seen and heard, what would you say was the cause of her death?"—"I think that is very complicated, the factors causing her death. The immediate factors, of course, would be the combination of what we refer to as terminal natural causes, like terminal pneumonia, which in its turn would have been fairly directly caused by her being kept under for the last few days. Then I think another very important factor—probably a larger factor—was this patient's very heavy pressure of opiate therapy. Thirdly, the patient's age cannot be ignored. I don't for the moment think of anything else. It is not possible without a post-mortem examination to say with any certainty what the actual final closing act is which ended life in the majority of patients."

Dr. Ashby was recalled on Tuesday, April 2, for the resumption of examination-in-chief. After his attention had been drawn to further of the nurses' reports, the witness was asked:

"If you are giving barbiturates and heroin—and we have heard about heroin producing twitching—what would be the effect of the barbiturates on those symptoms which may follow heroin?"—"I should have expected them to have a considerable influence in suppressing those twitchings, just like they suppress the epileptic phenomena, which are not very different."

"So the cessation of the administration of barbiturates would unmask those other symptoms if they were to be unmasked?"—"I should have thought that was to be expected."

The witness was then taken through the remainder of the reports. He said that by November 12 he did not see any positive evidence of the agonizing discomfort or pain which would justify easing the patient if she was dying anyway.

He said that the patient's history could be divided into three "chapters"; the first started with the stroke and earlier administration of morphia and heroin which he criticized on the grounds that they had made the patient an addict; the second began in the summer of 1950 when it was clear that the pressure of sedation was being further increased: "I don't think she was getting as much morphia and heroin as she needed, and they were in a spiral and a dilemma, but a solution of that dilemma, instead of being desirable, became obligatory, as a disaster could only otherwise result." Chapter 3 was a matter of circumstances and decisions rather than precise dates, and he regarded it as the time when there was virtually no hope of the patient recovering from the effects of the previous circumstances. The Attorney-General then asked:

"Can you see any reason why this lady of her age should have died on November 13 if the heroin and morphia had not been administered to her?"—"I don't think she would have died. I can see no reason from these reports to have expected her to die. She was sitting up in a chair talking quite brightly only a few days before."

He agreed that the books showed no record of the administration of morphia and heroin on October 26 and 27 but only the "special injection" given by Dr. Adams.

Cross-examination of Witness

Mr. Geoffrey Lawrence: "Dr. Ashby, you say that you do not think Mrs. Morrell would have died by November 13, 1950, if she had not been given the drugs mentioned in the nurses' notebooks; is that right?"—"I did say that, yes."

"You would say also, would you not, that if she had not had the drugs mentioned in the nurses' notebooks—and I mean by that going right back over the regular course of sedation, the whole pattern of treatment and medication—it is quite impossible to say that if she had not had that she would have lived as long as November 13?"—"No, I agree one could not. I don't think the earlier treatment had any great influence on the length of her life and she might have died of natural causes earlier. I would accept that fully."

He did not think her life-expectation was materially altered by the earlier therapy, nor was it any protection against sudden death from natural causes, from anything else like another stroke or a heart attack.

Mr. Lawrence: "There are some limits to the powers of divination of a doctor, are there not?"—"Extremely. We are very limited in our powers, particularly of prophecy about life and death."

"That is exactly what I thought. And equally about what causes death?"—"Yes, particularly immediate, rather perhaps unexpected deaths."

"And it is equally unsafe to be dogmatic, is it not, about how long any given person would have lived but for this or but for that?"—"Certainly. I hope I have not been dogmatic about it?"

"Life is so full of chances, is it not?"—"It is."

"And the field of medicine, although gradually being explored, has still many uncharted deserts in it, has it not?"—"Certainly."

"Where there are great gaps in knowledge?"—"Yes."

"And particularly in the relationship of cause and effect?"—"I would agree."

"And therefore, in vitally important matters, a careful and wise consultant would hesitate to be dogmatic?"—"Yes. I have tried to hesitate."

"When do you say that Dr. Adams murdered Mrs. Morrell—or don't you say that?"—"I do not think it is for me to say that. I have done my best to guide the court as to what I think would be the results of certain actions and chemicals; I do not really feel in a position to say that on a certain day or even week Dr. Adams decided to murder Mrs. Morrell. I do not feel that is my duty."

"It may not be what you conceive to be your duty; but you cannot say that, can you, on your review of all the evidence in this case—certainly the nurses' notebooks—that on any day or any week he made up his mind to kill Mrs. Morrell?"—"In respect of the books, and if I may bring in the nurses' evidence, I feel that the instruction to keep her under would have almost certain effects and the dosage of 4 gr., 5 gr., and 3½ gr. of heroin combined with morphia would also have brought certain effects, but I am not prepared to say whether they were instructions of a murderous nature."

Mr. Justice Devlin: "I think you are quite right to leave the word 'murder' out of it, but were they instructions which, in

your view, a general practitioner with Dr. Adams's qualification would have known would accelerate her death ? "—" The instruction to keep her under could not fail to have—I should not say 'could not fail,' but would be almost certain to accelerate death."

"And that is a conclusion which a doctor with Dr. Adams's qualifications would have reached ? "—" Yes. I think an anaesthetist is particularly conversant with the dangers of a patient being unconscious or semiconscious."

Mr. Lawrence: "Dr. Ashby, if we are going to talk about instruction which, if executed, would be calculated to shorten life it is vitally important, is it not, that we should be accurate about what those instructions were ? "—" It is."

"And try to find out for ourselves in what circumstances they were given ? "—" Essential."

Mr. Lawrence suggested that the instruction to keep the patient from being restless was not the same as the instruction *simpliciter* to keep the patient under.—" I do not think it is quite the same as had the sentence contained only the instruction to keep her under." It was a fair interpretation of Nurse Randall's note, "It was doctor's orders to keep her from getting restless, to keep her under as much as we could at that stage," to say that in it she had really expressed, first, the object and the purpose of the instruction, and, secondly, the means whereby that object or purpose was to be achieved. If that was so, the question of whether or not it was justified must depend upon the patient's situation as seen by the general practitioner.

No Maximum Dose

The witness emphatically agreed that there might well be circumstances in the situation of a patient which justified the doctor putting the comfort of the patient before the longest possible survival date. The man to judge of that was the doctor in charge of the case—there could be nobody else.

After an initial stroke, in an old person with an arterial condition such as that of the deceased, it was by no means uncommon for a second cerebral vascular accident of some kind to occur; in fact such a patient was more likely to die of a second stroke than by heart failure.

The witness said he did not think any doctor embarking on a weaning process after November 1 would have done so with more than a slim expectation of success.

He agreed with counsel that there was no such thing known in the medical profession as the "maximum" dose in respect of the drugs in question, as such.

Mr. Lawrence: "It is extraordinarily difficult, is it not, if not impossible, to talk about fatal doses in the case of the opiate drugs ? "—" Yes."

"So much, indeed all, depends upon the condition of the patient who takes the dose ? "—" Certainly."

When passing from non-tolerant people to those who had acquired a tolerance, it was even more difficult to say what the level of a fatal dose would be, although the patient's record should give some information about the response to smaller doses.

"Dealing with tolerant persons, have you heard the view expressed by some authorities that it is practically impossible to kill tolerant patients by means of drugs ? "—" Yes. It can be very serious from the doctor's point of view. It is well known that in the very bad painful cases we have to be careful not to start these drugs too soon or the point becomes reached where, owing to extreme tolerance, they are ineffective, and there may be nothing else."

"But all up the scale the field is one of great uncertainty, is it not ? "—" Yes."

Heroin was a drug which was notable for the production of a feeling of well-being and would be likely to cope with the tendency to outbursts and lack of co-operation with the nurses which the patient evinced upon her return to Eastbourne from Cheshire.

Mr. Lawrence: "If he had given her morphia by night and heroin by day, does it occur to you that he would have been securing her sleep at night and her co-operation during the daytime ? "—" He would. I have never denied the advantages which those two drugs give."

"What he did was to combine them together ? "—" He did, yes."

"Is there any synergistic value in combining these two drugs ? "—" I was not aware of a strong synergistic action. Dr. Douthwaite is the great expert. I must say I didn't know it was as strong as he suggests."

"If there is any synergism between these two drugs, then the combination of them in one injection would be getting the most out of the ones you were giving to the patient ? "—" Given those premises I would accept that conclusion."

"The disadvantages—and I'm not going to dodge it—are the disadvantages of addiction ? "—" Yes. I think at that stage the only disadvantage, except for a small measure of possible deleterious effect. But heavy barbiturates also, if they had been necessary, might also have produced a deleterious effect. I don't think it would be fair to say that only morphine and heroin would have that effect."

He agreed that when Dr. Adams came to say on the form what was the immediate cause of death he would have in his mind the initial stroke in Cheshire, the condition of arteriosclerosis, and his own diagnosis on October 9 of a supervening cerebral vascular accident. The isolation of the immediate cause of death was a very difficult matter. In those circumstances the entry might have been quite an honest one. He agreed that a post-mortem examination would not indicate a patient's degree of tolerance to a drug.

Final Cause of Death

Re-examined by the Attorney-General, he agreed that a post-mortem would show whether there was heroin or morphia in a body, and experts could estimate the amount with considerable accuracy soon after death.

The Attorney-General: "Assume for the moment that she had on November 8 and all the subsequent days the morphia and heroin prescribed for her; in your opinion was that morphia and heroin the cause of her death, or was her death due to natural causes ? "—" I think that would have been the cause of her death. As I said before, I don't think she could have survived that dosage, but that dosage might well have killed her by an apparently, as it were, natural cause—I hope I have made that clear—such as thrombosis or terminal pneumonia."

The full dosage of the prescriptions would have caused death from direct suppression of the vital centres; the same result would occur if the major part had been given. He did not think she could have survived the level of the injections given on November 10, 11, and 12 with paraldehyde in addition.

After further questions from the Attorney-General, the Judge asked: "Dr. Ashby, in an important answer that you gave to Mr. Lawrence you said that you could not rule out the possibility that the death of Mrs. Morrell was the result of natural causes ? "—" Yes."

"And you gave some further answers to the Attorney-General on the subject of cause of death ? "—" Yes, my Lord."

"When you said to Mr. Lawrence that you could not rule out the possibility that death was the result of natural causes, did you or did you not mean to say that you could not rule out the possibility that the death of Mrs. Morrell was not caused by drugs administered by Dr. Adams or under his instructions ? "—" I am afraid I did not quite understand your full question, my Lord, but I would like to say this, that my answer to Mr. Lawrence, at that moment I thought he was trying to ask me an entirely unbiased opinion on that last page. He said, if my recollection is correct, looking at the last page—and there were six lines—he then asked me about the patient's death and I did feel that on that page there was nothing which prevented me accepting the possibility of some fatal catastrophe like another heart attack or cerebral thrombosis."

"Yes, but I must put my question to you again . . . "—" Would you please ? "

". . . and get you to understand it if I can because it is important. You said you could not rule out the possibility that death was the result of natural causes ? "—" Yes."

"And then in answer to the Attorney-General you spoke about natural causes as having a terminal effect, or words to that effect ? "—" Yes."

"So that it might be said that death is the result, in the end, of natural causes but those natural causes, or the operation of those natural causes, were themselves produced by the drugs that were administered by Dr. Adams ? "—" Certainly, yes."

"And if that were so then it might be said that, looked at in the ordinary, common-sense way, the cause of death was the result of the drugs administered by Dr. Adams ? "—" Yes."

"Now, I think you have said that in your view that was the cause of death ? "—" Yes."

"But what Mr. Lawrence was asking you to-day was that he was asking you whether you could rule out the alternative possibility; that is to say, can you rule out the possibility that the death of Mrs. Morrell was not caused, in the ordinary, broad sense of the word, by the drugs administered by Dr. Adams?"—"Well, my lord, in so far as the nurses' reports show that her condition was not all that bad, she did seem to die in the end, to judge by these reports, fairly suddenly. I don't think . . ."

"I do not want, if I can avoid it—because I am not anxious to reopen the whole subject—you to answer that in detail, and that is why I began by asking you what you meant by your answer to Mr. Lawrence when you said that you cannot rule out the possibility that death was the result of natural causes. Did you mean simply that you cannot rule out the possibility that at the end natural causes was the terminal thing that brought about her death?"—"Well, with the greatest respect, my lord, I was just going to make it clear when you intervened."

"I am so sorry. Yes?"—"I think I can only say it in this way, that in so far as the reports do not make it completely certain that she was absolutely dying even six hours before, I do not think it is possible absolutely to rule out a sudden catastrophic intervention by some natural cause. It just is not possible to say this woman could not have had another cerebral haemorrhage at 1 o'clock that morning. There is just no evidence to say that that is impossible. I do not think it ever is possible completely to rule out the possibility, in a patient of 81, of sudden death."

"And in your answer to Mr. Lawrence, then, you meant no more than that you are not prepared to rule out the possibility that some cerebral haemorrhage might have intervened and brought about death?"—"Yes, I could not exclude the possibility of that beyond any shadow of doubt."

"Then you went on to say that Dr. Adams could well have thought that cerebral thrombosis was the immediate cause of death. When you said cerebral thrombosis then had you in mind the original cerebral thrombosis or the bare possibility of some intervening cerebral thrombosis?"—"I meant a terminal cerebral thrombosis."

"A further cerebral thrombosis?"—"Yes, my lord."

Cremation Certificate

On the thirteenth day of the trial, April 3, Dr. Francis Edward Camps was called by the Attorney-General to deal with a point raised by the judge. Dr. Camps, who is reader in forensic medicine at the London Hospital and the London Hospital Medical College, said that if a referee refused to give a cremation certificate, having had the forms duly completed and put before him, he could either order a post-mortem himself or, more commonly, notify the coroner, whereby the examination could be carried out under the coroner's auspices. In either event, as a result of that post-mortem examination, his Certificate F, which would be signed by the pathologist or the doctor carrying out the post-mortem, would supersede the B and C certificates, or, in the absence of the coroner, his certificate would cancel out the other two and his certificate was then accepted by the referee. If a person expressed a definite desire to be cremated, he thought it was obligatory for that to be done.

Under cross-examination Dr. Camps said that the medical referee, having examined the forms submitted to him, could order a post-mortem in his own discretion; but this was usually only done in cases of technical difficulty, such as the person not having been seen within the prescribed time before death. If he communicated with the coroner, the latter would undertake an investigation, statements being taken from the various people concerned, and might then order a post-mortem. In cases of cremation now it was always the practice to order a post-mortem because it was the final act. Having assessed the evidence, the coroner then held an inquest if he thought fit, but he was entitled to sign a cremation certificate, after due inquiry, without an inquest if he was satisfied that there was no suspicion or that death had not resulted from an accident, or anything of that sort.

He agreed, in answer to the judge, that some relatives might very much dislike a post-mortem, and the situation could arise (although he had not personally met it) whereby if the doctor had been left a legacy in the will, the relatives might say, "We would much rather that she was buried, and we believe that that would be her own wish rather than a post-mortem being carried out." His own experience had been that in such cases the medical referee automatically notified the coroner.

Mr. Geoffrey Lawrence then made a submission in law, in the presence of the jury, that there was no case for the defence to answer.

The judge said, without calling on the Attorney-General to reply, that, after careful consideration, he had come to the conclusion that the matter should be determined by the jury and that he would therefore overrule the submission.

Mr. Geoffrey Lawrence explained that the defence had decided, in all the circumstances, not to call the accused.

Expert Evidence for Defence

He then called his medical witness, Dr. John Bishop Harman, of Harley Street, physician to St. Thomas's Hospital, London, to the Royal Marsden Hospital (formerly the Royal Cancer Hospital), and to the St. Helier Hospital, Carshalton.

It was clear that in June, 1948, Mrs. Morrell had had quite a severe stroke, and, Dr. Harman thought, was in a rather difficult mental condition. Her condition was symptomatic of arteriosclerosis. Pain did not usually accompany a stroke. He nevertheless assumed that the morphine had been given for pain. It was occasionally necessary to use morphine as a sedative in restless people who had had strokes. He was not prepared to condemn the use of morphine in such circumstances.

Asked about the use of morphia and heroin in the treatment of the patient when she had returned to Eastbourne in the mid-summer of 1948, he said that when a doctor took over a patient from another doctor, even though he had known her before her stroke and had visited her in Cheshire, the usual thing would be to continue with the treatment, for a time at any rate, that the other doctor had found necessary.

Mr. Lawrence: "So far as heroin is concerned, have you ever known of its use in cases other than cases of severe pain?"—"Oh, I use it for such, yes."

Dealing with further symptoms of a period of confusion after October 9, he said that, without reading too much into the reports, it was clear that the period lasted for a few days after the acute episode at night and then apparently passed off again. That would, of course, be consistent with a stroke, it would be consistent with more drugs having been given, but he saw no evidence of the latter.

The Cheyne–Stokes breathing, reported on the night of October 14–15, was one of the characteristics of a mild heart failure of a certain type which occurred particularly at night. It was not unusual and might occur in elderly persons for no very obvious reason.

Mr. Lawrence: "On the evidence presented in the report, are you able to take a view, as the other doctors took, that there was a point when clearly she was a dying woman?"—"Yes, I agree to the dates suggested, roughly."

"Dr. Douthwaite suggested November 1, and I think Dr. Ashby put the date later—on the 8th or 9th."—"Yes. On the 8th it was much more obvious; on the 1st it was not so obvious. I think it is merely a question of how soon you make your diagnosis."

"Now, what do you say about this omission of morphia and omnopon and the concentration on the heroin at this stage? You have heard what Dr. Douthwaite said; what do you say?"—"Well, I entirely disagree with what Dr. Douthwaite has said on that subject. I agree with Dr. Ashby when he said it struck one as of no particular significance."

"Is it or is it not a variation of the drug?"—"Yes."

"That is not such a silly question as it sounds, in view of Dr. Douthwaite's answer to me on that point?"—'Well, one does speak of a variation sometimes in quantity, sometimes in kind. This was a change."

He agreed with Dr. Ashby that when the point of no return had been reached the first duty of the doctor was to promote the comfort of the patient. The administration of drugs after that point indicated that they were being given to stop her getting excited, to keep her peaceful, and that they were not working effectively. He was not sure why atropine was given, unless it was to stop mucus and trouble in the throat. The only effect of the paraldehyde given on the last day would be sedative.

Mr. Lawrence: "On the evidence of these nursing reports, is that death a morphine death or not, in your opinion?"—"No."

"Why do you say that?"—"By far the commonest form of morphine death is death in a coma and from respiratory paralysis. Before respiration completely stops it becomes very, very slow; it may be only ten or six times a minute."

"What, then, in short, is the significance in relation to a possible morphine death, of this record of respirations at 50 an hour and a quarter before she died?"—"It shows she was not having the usual effect of fatal doses of morphine before she died."

He said that the time from the respirations having been noted at 50 to the time when she died was much too short for her to have died of morphine poisoning, morphine having been taken seven and a hours before.

The cause of death might have been a coronary thrombosis. He saw no necessity to link her death with the doses of heroin and morphia, although it was possible that it was so linked. Although they were rather large doses of an hypnotic, which in general was a bad thing, it was just as likely that they did her good and that she would have been worse without them. There was no evidence either way.

He had searched world medical literature dating from 1800 to 1956, more than 10,000 references on morphine and allied subjects, for evidence about morphine convulsions, and had found descriptions of only 18 cases, excluding infants, of which one had been due to heroin, the remainder to morphine—4 in women and the rest in men. Many of the reports had been extremely sketchy, merely referring to Chinese coolies having convulsions with unknown doses. Not all the recorded instances, of course, had been available.

The witness described and demonstrated convulsions, and showed the difference between clonic and tonic movement.

Mr. Lawrence: "On the evidence here, what do you say about the death? Was it a death from the convulsive effects of morphine poisoning or not?"—"I found it very difficult to discover the relationship between convulsions and death. Only four of my cases are recorded as having died in fact, though they had convulsions. My impression is that when they die with convulsions they die in a convulsion, but my knowledge of the phenomenon is so slight that I would not suggest that this is invariable."

"At any rate, as Dr. Ashby said, it is a very rare phenomenon?"—"Yes."

Fatal Dose

He said that the conception of a fatal dose was really too simple to have any practical value. Morphine and heroin were absolutely outstanding for variability, especially when tolerance was taken into account.

Mr. Lawrence: "Would you have expected the doses indicated in the nurses' notebooks to have had a fatal result on Mrs. Morrell?"—"The whole point of morphine doses is that I would not expect anything. It is much too varied and unpredictable. On this dosage I would not say that death could not occur."

He had been surprised to hear hyoscine mentioned as an alternative drug to morphine and heroin. He certainly would not recommend it if there was a danger of respiratory failure.

It was a fairly general rule that morphia and hyoscine were not used together pre-operatively in patients over 60, because that synergistic combination would be likely to depress respiration. He did not think the use of atropine made much difference either way. He, personally, would have turned to paraldehyde if he had had to turn to something. Dr. Douthwaite's description of it as "an old-fashioned and well-established hypnotic" was rather derogatory: it was an old one in continuous use.

Asked to comment on the "sinister" suggestion of the prosecution about the patient's dependence on the doctor for drugs, he said addicts did develop a strongly emotional relationship to people or places from which they got their drugs, but that did not apply in places, such as China, where supplies were easily obtained. There was no evidence that Mrs. Morrell even knew she was dependent on morphine. He saw no evidence of craving for drugs by the patient.

On the fourteenth day of the trial, April 4, Dr. Harman was recalled to give the remainder of his evidence-in-chief. He said that in his opinion there was no reason why heroin should not be given to elderly people. If there was a danger it must be a very small one which was not obvious to a large number of doctors who used the drugs. He agreed with Dr. Ashby that there was nothing sinister in the withdrawal of the morphine from the treatment at the end of October and the beginning of November, 1950.

There was nothing astonishing in the direction to the nurses to give morphine and heroin S.O.S. He frequently did it himself. He would leave it to the nurses' discretion.

Witness Cross-examined

Cross-examined by the Attorney-General, he said he had been in general practice for one fortnight. Prior to the case he had made no special study of heroin and morphia.

The Attorney-General: "You are a recognized authority, are you not, on a disease known as Q fever?"—"I have described cases."

"And Dr. Douthwaite is a recognized authority in relation to heroin and morphia?"—"He is."

"When you have to perform a diagnosis, you seek, no doubt, to take into account all relevant facts and symptoms?"—"I do."

"It is very important, is it not, that you should not shut your eyes to the obvious or not give certain factors their full weight?"—"It is."

"When were you first asked to consider this case?"—"About a fortnight before it opened."

"At the magistrates' court?"—"No, here."

"When did you start reading books on this subject to prepare for your evidence?"—"During that time."

The regulations, with regard to dangerous drugs, were quite strict. It was important that the drugs should not be left lying about. Doctors would not normally prescribe morphia and heroin for a patient without the intention of using them on that patient. He was unwilling to suggest what would have been the effect if nearly all the drugs prescribed between November 8 and 13 had been administered, but he certainly thought she could have survived that dosage.

The Attorney-General: "If she had these prescriptions given to her in that short period, that would not form a topic of medical shop between you and other doctors?"—"Yes, those doses would."

"Have you ever heard of any doses like that being prescribed for a lady of 81?"—"Yes."

"A dying lady—not dying of cancer—a dying lady?"

"In the case I am thinking of, the lady was not dying at all."

"Have you ever heard of any prescriptions like that being prescribed for a dying lady of 81?"—"I have not heard of an exactly comparable case."

"If this lady was, as you say, dying early in November, the administration of this dosage must have killed her, must it not?"—"No."

"It would have been a most remarkable thing if she had survived it, would it not?"—"It would have been a thing worth talking about to colleagues."

"As a remarkable thing?"—"As a remarkable thing."

He did not agree with Dr. Douthwaite's evidence that each one of the prescriptions prescribed on the last days, if administered on those days, was a lethal dose. Dr. Harman said he had only treated two or three addicts and had never attempted to wean one.

The Attorney-General: "Were the addicts you treated morphia or heroin addicts?"—"One was a heroin addict, the others morphine addicts."

"One heroin addict is not a very representative pattern, perhaps, on which to base a general opinion, but was that addict excitable?"—"Not at all."

"How many years ago was that?"—"It was before the war."

"Is that the last case you have seen of heroin addiction?"—"Yes."

"Am I right in concluding that most of the views you have expressed about heroin are views you have formed after reading books for the purposes of this case?"—"Yes. That is one of the usual ways of gaining knowledge."

He did not consider that, if heroin was given repeatedly, the patient would probably develop a feeling of great gratitude to the doctor who was giving her such wonderful injections.

"Are you really saying that a doctor who succeeds for two years by the use of these drugs in making his patient feel better would not get a sense of gratitude felt by the patient towards him?"—"I think she would get a sense of gratitude from all his attention in general."

He saw no reason why an attempt should have been made to wean the patient, because she was getting along very well and the attempt was not necessarily worth it.

"You would not normally regard it as proper treatment for someone who suffered a stroke involving loss of use of the left arm and left leg to keep that woman under the influence of drugs from then on, would you ?"—"I should say it was quite usual."

"Have you ever done it ?"—"Yes."

"For two years ?"—"Not under morphine and heroin."

"What is the longest that you have kept anyone who has had a stroke under morphine and heroin ?"—"I do not recall using morphine and heroin for a patient with a stroke."

"Have you heard of any other doctor except Dr. Adams keeping a patient for two years on routine injections of morphia and heroin after a stroke ?"—"Well, I heard talk that this sort of thing, this sort of treatment, is started, and if the estimate of life is wrong it continues. I can't point to an instance, but I have heard that sort of talk."

"You do not know of any instance based on the textbooks where that has been recognized as proper treatment ?"—Textbooks certainly would not recommend that, not to students."

"Why not ?"—"Because of the difficulties that are involved."

"Is not one of the difficulties this, that long medication with heroin and morphia is bad for the patient's health ?"—"No, not necessarily."

"But normally ?"—"No."

"It is good for the patient's health to be a drug addict ?"—"No."

"It has no effect on a patient's health ?"—"The point which I wish to emphasize is that if a person becomes dependent on morphia they must continue with the morphia unless they are broken."

"Has it any effect at all ?"—"It need have no obvious effect."

He said he had used heroin for people whom he thought were dying, other than in cases of severe pain. The treatment had certainly lasted, not for two years, but for some months.

The witness, having been taken through the nurses' reports, was then asked about the jerkings to which reference was made.

"You have never seen what you might call jerkings or convulsions due to heroin, have you ?"—"No, I have not."

"When you referred in your evidence to morphia convulsions, were you also meaning heroin convulsions ?"—"I was."

"And your dramatic acting of the convulsions was based upon what you have read of convulsions that follow upon heroin ?"—"Yes."

"You have never seen one, have you ?"—"No."

He did not accept that the heroin prescriptions for November 10 and 11 were heavy amounts for a patient of 81. It was true that by far the commonest form of morphine fatality was death in a coma and from respiratory paralysis. He said that her death was quite consistent with coronary thrombosis.

Cause of Symptoms

In re-examination Mr. Lawrence asked Dr. Harman: "How far, if at all, is it possible to say with any certainty that those drugs, even when stepped up as we find they were from Dr. Harris's time in September onwards, had any effect upon her ?"—"I think it is quite possible that soon after the drug was stepped up it had an effect, but my view all along has been that it is by no means certain that these symptoms that we have looked at month after month were due to drugs. That has been the theme in this discussion—that they were due to drugs. They might be due to her illness, and in fact I think most of them were."

After further questions from Mr. Lawrence, Mr. Justice Devlin asked the witness: "Dr. Harman, I want to ask you some questions about the instructions to 'keep under.' You know what I mean by that ?"—"Yes, my lord."

"I do not want any dispute about the exact nature of the phrase. What I mean by 'keep under' is simply that the instructions were intended to be carried out in the way in which they were in fact carried out by the nurses, neither more nor less, and 'keeping under' is a convenient label for that, because that is what Nurse Randall called it. One other phrase I would like to make clear so that there is no misunderstanding about it is 'accelerating death,' and I do not mean by that merely giving treatment which has the result of bringing death a little closer by hours or minutes in the last stages—such as no doctor can be expected to calculate—but I mean a real cutting short of life, though not necessarily for a sinister purpose. Would you agree or not that the instructions (and you have them very well in mind) to keep under, and what was done in consequence of that, accelerated death ?"—"No, I do not think that."

"You think they did not accelerate death ?"—"I think they did not."

"Do you attach any significance to them at all ? Do they stand out from among the events of, say, the last 13 days in your mind in any way at all ?"—"Yes. They signify to me that the patient had got to the stage of her delirium in which she would have remained excited, distressed, and uncontrollable if she had not been under some influence of drugs. I take it that that was a change in her condition, when before that she was occasionally confused and out of control and excitable, and now it was deemed that this state was continuous."

"Therefore, in your view they were right and natural instructions to give, having regard to the change in her condition ?"—"I would agree, and I would add further that that sort of policy, if that was the policy, is quite a common one in such cases."

Asked about Dr. Ashby's view that the instruction to keep her under would be almost certain to accelerate death, Dr. Harman said: "I would put the emphasis the other way round. I would agree that it might have done, and my opinion would be that it probably would not have done so."

"Is that the sort of point, then, about which you inevitably get differences of opinion between medical men, in your view ?"—"We are talking about whether terminal drugs, and so on, do have an effect upon the length of life ?"

"I am talking about the answer you just gave."—"Yes. That would always be a field of disagreement or dispute, and so common that people do not usually dispute about it. One knows that different views may be held on a given case."

"What I mean is, you do not find the view which Dr. Ashby has expressed a very startling or surprising view; you merely say, 'It's not my view, and my emphasis is the other way round' ?"—"That is exactly so, my lord."

After both counsel had addressed the jury, the judge began his summing-up on April 8.

Medical Notes in Parliament

REMUNERATION CLAIM IN THE LORDS

The House of Lords discussed the remuneration claim, and in particular the terms of reference to the Royal Commission, on April 4. Lord MORAN brought the subject to their notice by asking the Government whether they were satisfied that the terms of reference would provide the necessary basis for a full examination of the problem.

There was no doubt, he said, that the recommendations of the Spens Reports had been accepted by the Government of the day. There was no doubt, too, as he could testify, that they had been interpreted in the same way by the Government and the doctors. But Lord Salisbury, in announcing the appointment of the Royal Commission, had said that the interpretation put on the report by the profession could not be accepted by the Government. From the time of the award by Mr. Justice Danckwerts in 1952 until to-day the Government had been anxious to get rid of the Spens recommendations.

The Labour Government might have been ill-advised to accept the recommendations and to promise to implement them, but it was on that acceptance that many doctors entered the Service. In all the circumstances those recommendations could not be thrust on to the dust heap just because they had subsequently proved inconvenient. If the Royal Commission were to interpret the terms of reference so that they were not required to pay regard to the past, if they were to make a fresh start and deal merely with scales for the future, they would be wasting their time. They would not allay the discontent of the doctors, nor provide a lasting solution to the question of remuneration. If the commission were not to take account of the Spens Reports, then their terms of reference should be changed.

When the doctors entered the Service they understood that the cost of living would be taken into account when their pay was reviewed; but he hoped that the doctors would not